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ABSTRACT

Environmental health impacts of development on Indian communities, and the roles of government agencies responsible for environmental protection and individual safety are being assessed by Americans for Indian Opportunity (AIO) during a two-year project. Although the more than 250 Indian tribes within the U.S. have federal guarantees for self-government of natural and human resources, examples are provided which show that some federal agencies and some tribal governments have made decisions with little information regarding the impact on the environment and health of Indian people. The AIO project, stressing a holistic view of the protection and development of Indian lands, has the following objectives: (1) increase awareness of tribal decision-makers regarding environmental health impacts of development activities and need for planning; (2) develop information to assist tribal communities with health and environmental protection; (3) develop alternative methods and, upon request, assist tribal decision-makers to organize community environmental health protection systems; (4) increase awareness of related government agencies to Indian concerns and facilitate cooperation with tribes in designing holistic approaches to problem-solving; and (5) establish communication between tribal government and local, state, and federal governments on environmental health concerns of mutual interest. (AW)

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# messing with Mother Nature can be hazardous to your health

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## assessment of environmental health impacts

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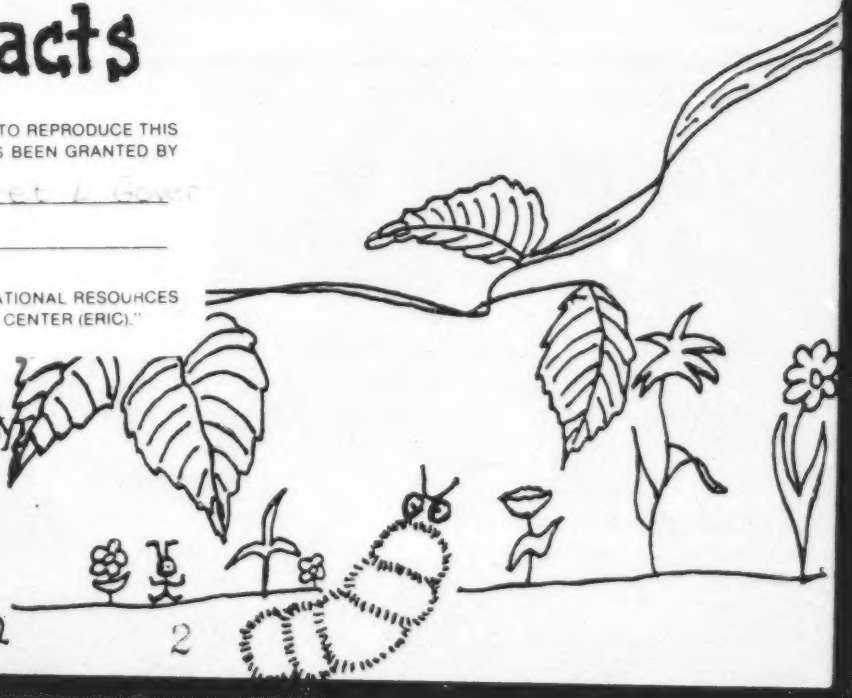

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*A Plan*
*to*
*assess the environmental health impacts*
*of*
*development on Indian communities*
*and the*
*roles of government agencies*
*charged with the responsibilities*
*for various aspects*
*of*
*environmental protection and individual safety*

*WHAT'S WRONG?*

-Grand Junction, Colorado school children began developing leukemia at a much higher rate than the national average. It was discovered that tailings from a uranium mine had been used for land fill.

-In Northern California, there are an unusually high number of miscarriages in areas where there has been heavy pesticide use.

-In Niagara Falls, industrial wastes buried several years ago on a site later used for a housing development has surfaced causing illness and injury to the residents.

-Navajos who worked in uranium mines twenty years ago are dying with cancer at a rate much higher than the national average.

-Suicide, homicide, child abuse, spouse abuse and other violent crimes are prevalent in "boomtown" areas.

*ENVIRONMENTAL HEALTH IMPACTS:*

Environment - the aggregate of social and cultural conditions that influence the life of an individual or community

Health - the condition of being sound in body, mind or spirit

Impacts - the force or impression of one thing on another, an impelling or compelling effect

Thus environmental health impacts are the forces or impressions on the aggregate social and cultural conditions that influence the condition of being sound in body, mind or spirit of an individual or community.

*IGNORANCE IS NOT BLISS!*

We've all heard about the blind men who were asked to describe an elephant — one took hold of the trunk and said that an elephant looked like a snake; another took hold of the tail and said an elephant looked like a rope; one took hold of the leg and said an elephant looked like a palm tree; another felt the side and said an elephant looked like a wall — and so on. Each was correct from his point of view. But nobody had the total picture.

*AMERICANS FOR INDIAN OPPORTUNITY HAS LEARNED:*

For the past five years, Americans for Indian Opportunity has concentrated on programs to provide information and assistance to tribes in strengthening their own governments and controlling the development of their own resources. During the past year, one of those programs has been to provide information to tribes on environmental regulation; another has been to design tribal systems for evaluation of their own decision-making processes particularly those relating to economic development.

We have become acutely aware that tribal governments are making daily decisions with far-reaching effects with very little information regarding the impact of those decisions on the environment and health of their people. Further, we have come to understand that other governments face similar dilemmas. Both projects have convinced us that while there are many federal agencies that have certain responsibilities for protecting the nation's environment and health, very little is understood about many possible environmental impacts and individual occupational safety hazards, and even less coordination and information exchange between responsible agencies. There also appears to be gaps in areas of responsibility. It appears that the federal government, including both the Administration and the Congress are dealing with the environment and health much as the blind men did with the elephant. They may be absolutely accurate about their own area, but they neither see the whole elephant, nor do they know that there are others describing the elephant in different terms. Take the following case study for example:

*A reservation is located forty miles from a major urban area. An interstate highway and a state highway intersect in the middle of the reservation. A major railroad also runs through the reservation.*

*This reservation is the site of a large uranium pit mine. There is also underground uranium mining*

underway. The mines have been under development and producing for over twenty years. The strip mined pits are several hundred feet deep and the affected area including roads, storage piles, tailings ponds, equipment areas, office buildings, and the like, are spread over several square miles.

A housing area with perhaps a couple of hundred people living in it is located just across the highway a few hundred yards from the tailings pond. A spring-fed stream runs along the bottom of the dam.

Another reservation lies immediately to the west, between the mining area and the milling town, located off the two reservations. The uranium from the reservation mine and other nearby mines is milled into yellowcake and shipped out to various locations. It is an energy boomtown with all the problems of boomtowns — inadequate water supplies, sewage systems, housing, etc. The majority of the housing is mobile homes.

The mines employ about 700 workers, 450 of whom are members of the tribe, (this is 3/4 of the tribe's active labor force.) There is a sizable number of workers from other nearby reservations, as well as from the non-Indian communities in the surrounding sixty-mile area. Some have company-furnished housing on the reservation. The developer prides itself on being an equal opportunity employer and hires women as well as men to work in the mines.

The mined ore is stored in open-air unprotected areas in graded piles ranging from the highest grade to the lowest. It is reloaded and trucked to the railroad from the various piles, so as to insure a consistent grade mix in the loads shipped to the mills each day. It is then shipped by rail in open box cars thirty miles where it is milled into yellowcake which is then shipped by truck or by rail to wherever yellowcake goes.

The area is arid, but it is subject to flash flooding and high winds, particularly in late winter and early spring.

Many of the threats to the environment and the health of the people are immediately evident.

Yet there are no federal or tribal laws regulating uranium strip mining. The state laws are not enforceable on the reservation.

There was no water testing at the time the mine was opened, so there is no baseline data upon which to measure changes in radioactivity and metals content. There is no monitoring system for measuring radioactivity in the water now — twenty-five years later. Indian Health Service does monitor water quality, under an interagency agreement with the Environmental Protection Agency, for contaminants other than radioactivity.

There has been no air quality monitoring.

Until two years ago, mine safety inspections were made by state inspectors who only found a very minimum of minor violations, (and it is doubtful that they are acting within the limits of their jurisdiction). The Tribal Council was finally able to get federal inspectors to come in. On their first inspection, they issued ninety-some citations all of which were subject to $1,000-a-day fines unless corrected within twenty-four hours.

There has been an increasing number of traffic accidents, particularly on the state highway, because of the narrow, winding nature of the highway and the poor upkeep. It was not designed to handle the kind and amount of traffic it presently carries. The state has been receiving federal highway and impact funds; however, no improvements have been completed to date. The tribe erected speed and traffic control signs on the state highway in an attempt to moderate the dangers. However, the state refuses to cite violators because they didn't erect the signs, and the signs were not made by the people who make signs for the state — which refuses to erect its own signs. Because of the Supreme Court decision in Oliphant v. Suquamish, the tribe has no jurisdiction over non-Indian violators.

The fact that young women and young men of childbearing age are working in the mines without knowing whether there is a possibility of damage to the reproductive system or to genes of future generations, is particularly disturbing, in view of the fact that tribal genetic pools are more or less closed.

Researchers are beginning to publish data that indicates that uranium miners, particularly

*those who smoke, are far more likely to develop cancer than the general population.*

*The roads to the mining area are closed, but the area is not fenced. There is danger of children or teenagers getting into the area, either accidentally or as a prank.*

*There is blasting ahead of the loaders almost daily. There are indications that both water quality and quantity are deteriorating because of the milling activities, and the accompanying rapid growth.*

*The mining company did not submit the reclamation plan required under the terms of the lease until twenty-two years after mining began. A small area has been reclaimed, but cost figures are not available, nor is there information available as to the safety or future use of the reclaimed area.*

*Hazardous materials including radioactive materials are transported both by rail and by highway through both reservations.*

*Two new uranium milling facilities are planned for the northern edge of one reservation. The mills will no doubt have an affect on water quality and quantity, and perhaps on the air quality of both reservations.*

## *WHO CARES, OTHER THAN THE TRIBES?*

The Federal government has a special responsibility to Indian tribes, the trust responsibility, which requires that it insure that Indian resources are protected and managed in the best interests of the tribe.

Yet the Department of Interior's various agencies which would seem to be involved — the Bureau of Indian Affairs, Bureau of Mines, Bureau of Land Management, United States Geological Survey and Bureau of Reclamation — do not appear to have provided sufficient safeguards

The Environmental Protection Agency, the pollution control regulatory agency of the federal government, made an agreement with the Indian Health Service (IHS) for IHS to monitor water quality, however, they do not monitor radioactivity because that is the bailiwick of the Nuclear Regulatory Commission. Some of the laws which EPA operates under fail to provide specific remedies for environmental problems facing Indian tribal governments.

The Indian Health Service in the Department of Health, Education and Welfare has made significant progress in improving Indian health-care services generally since the early fifties. Yet there seems to be no monitoring and reporting systems which would alert them or the Indian community to significant changes in health patterns. They are in a unique position to do so since Indians who live on reservations receive their health services from the same source. There has not been a great deal of emphasis on preventive health care or preventive medicine.

It would seem that the National Science Foundation, the National Institute of Health, the Occupational Safety and Health Administration, the National Institute of Mental Health and other health organizations would have great interest in the problems of the tribes because of information that could be gained for science's sake and more importantly for society's sake.

The Department of Transportation, the Department of Commerce and the Department of Justice should have more than a passing interest in the traffic and law enforcement problems. The transportation of radioactive materials alone is enough to merit that.

The Department of Agriculture should have an interest in the effect of mining activities on these rural communities — the plant and animal life as well as the people.

Further, the state, the city, the surrounding citizenry all have an interest in the same problems the tribes have.

Nobody anticipated the far-ranging and complex problems that would arise as a result of uranium mining. The sad fact is that nobody has learned very much from that experience.

*INDIAN/FEDERAL RELATIONSHIP*

There are over two hundred and fifty Indian tribes within the United States, each with their own governments, citizenry and natural resources. As governments, they are faced with all the expectations for protection and services that any other governmental entity is, plus the added expectation that they will protect and enhance their individual tribal cultures and manage their resources held in common to the best interests of all their people. These nations within a nation, under the Constitution of the United States, by treaty, statute and other law, have a special relationship with the Federal government, unlike that of any other governmental entity in the United States or in the world. Simply put, that relationship is that the Federal government has guaranteed the right of the tribes to self-government of natural and human resources including

health and education. In return, the tribes gave vast acreages of land and resources to the federal government, intended to bind the contract in perpetuity.

It is pointless, for the purposes of this document, to enumerate the series of failures and inequities that have occurred. Both the Federal government and Indian nations now intellectually agree at least that the protection and development of Indian owned natural resources rests in Indian governments under the umbrella of Federal government trusteeship. This latest policy is called Indian self-determination.

Indian governments and Indian citizens are subject to the same Federal laws that apply to other governmental entities plus special legislation relating only to Indians. The problem is that many laws have been enacted by the Congress that have ignored Indian governments because of a lack of knowledge or understanding of the special and unique relationship between the tribes and the Federal government. Regulations have then been written to implement such legislation by government agencies equally ignorant of the facts. *THE BURDEN HAS ALWAYS BEEN ON INDIANS TO DEVISE WAYS TO EDUCATE AND ADVISE THE AGENCIES ON CREATIVE IMPLEMENTATION OF INCOMPLETE LEGISLATION.* What is disturbing is that as Indian tribes have begun to make advances economically through the development of their natural resources and the management of their own service delivery programs, new and perhaps more potentially dangerous health problems, both physical and mental, are beginning to show up. We believe those can be called development-related environmental health impacts.

The effects of development on the environmental health of Indians have been largely ignored, not due to a lack of interest by Indian people, but because of a lack of knowledge of the potential dangers. However, there is reason to believe that these effects have been ignored by responsible government agencies due to a lack of interest in or a lack of awareness of the kinds of problems Indians must deal with and their responsibility to Indian nations. We prefer to think it is a lack of awareness. Further, we believe that there are both gaps and overlaps in responsibility for environmental protection for Indians as well as for the society as a whole, which should be identified and corrected.

Americans for Indian Opportunity has undertaken a project to assess the environmental health impacts of development on Indian communities, and the roles of government agencies charged with the responsibilities for various aspects of environmental protection and individual safety. A very vital part of this undertaking is to design the project in such a way that the concerns of the Indian community and the federal agencies are clearly understood by both.

Americans for Indian Opportunity has received commitments of interest and support from the Administration of Native Americans, Bureau of Indian Affairs, Department of Energy, the Environmental Protection Agency, the Indian Health Service and the Department of Labor.

The project, as we envision it, will be carried out in four phases over the next two years, and will have the following objectives and activities:

*OBJECTIVE A.*

*To increase the awareness of Indian tribal decision-makers of the environmental health impacts of development activities, (industrial, natural resources, etc.), and of the need for planning for environmental and health protection.*

*METHODS*

1. Convene a planning meeting of knowledgeable people from the Indian community and officials of relevant government agencies to develop strategies for accomplishing the objectives of this project.

2. Research and compile information on past, present and anticipated forms of development on Indian reservations.

   a. Design a "case study" information gathering device (a list of questions) to which tribes would be asked to respond. This will be a basic introduction to "holistic think". This will also serve as a tool for evaluating attitude and awareness change during the period.

   b. Supplement information received from tribes with information:

      (1) Already collected by AIO

      (2) Available from various government agencies such as:

          Bureau of Indian Affairs
          Department of Commerce
          Department of Labor
          Indian Health Service
          Department of Housing and Urban Development
          Department of Energy
          Department of Defense
          Environmental Protection Agency

Nuclear Regulatory Commission
Department of Health, Education and Welfare
Department of Transportation

(3) Collect information available from Chambers of Commerce, state and/or city agency sources, etc., for use in rounding out regional profiles of areas in which tribes are located.

3. Research and compile data on known dangers of such development to health and environment, including hazards to individual workers.

   a. Sources of information will include government agencies who provide funding for research, those who provide funding for/or subsidization of development, and those who have regulatory responsibilities, as well as non-governmental sources such as educational, private research groups, health care professional groups, etc.

   b. We will attempt to summarize information and put it into usable and understandable terms. We will, for instance, call a sore a sore.

4. Identify people with expertise in environmental health effects of various kinds and in environmental health planning for participation in forums for information exchange and/or the national conference.

   a. In the information collection stages, we will identify certain problems that are more common than others that will need to be emphasized in seminars and publications. Information will be more credible if it is presented by "experts" in the field. Also, by involving people both inside and outside the Indian community, we will begin to build interest in the subject of environmental health protection and the continuing activities of the project.

5. Prepare and distribute written material regarding the project, research, etc., on a systematic basis not only to tribal decision-makers but to all Indian organizations, Indian publications, etc. This material may include, but not be limited to press releases, Red Papers, Red Alerts, clipping and reproduction of information produced by others, etc. The same material may or may not be distributed to members of federal agencies, the Congress and non-Indian press.

6. Assist tribal decision-makers in informing and involving their tribal members in environmental health planning and protection.

    a. Prepare suggestions for intra-tribal communication such as:

        (1) Questionnaires distributed by the tribe to its own tribal membership for identification of concerns, problems, attitudes, etc.

        (2) Suggested lesson plans or outlines for use in elementary, intermediate, high-school, community colleges.

        (3) Develop plans and/or produce mass media documentation of Indian environmental health impacts, using film suitable for television, (16mm, etc.), photographic essays, and magazine articles.

7. Provide a forum for exchange of information between tribal decision-makers and relevant government agencies in a series of regional seminars using information and expertise listed above.

8. Conduct a national conference on major social, economic, health and land and water use issues that affect the quality of life on Indian reservations bringing together Indian decision-makers, federal, state, and local government officials, environmental and health private interest groups, and interested individuals.

*OBJECTIVE B.*

*Develop the necessary information and documentation to assist Native American communities in their efforts to protect their own health and environments.*

*Methods*

1. Identify all federal laws and regulations dealing with environmental health and protection as well as the roles and responsibilities of the different agencies.

2. Develop and distribute a well-organized, easy-to-follow, and cross-referenced handbook of the information compiled in Step 1, including resources available to community leaders in this area.

*OBJECTIVE C.*

*Develop alternative methods and options for organizing Indian community environmental health protection systems. Upon request assist tribal decision-makers in institutionalizing their own environmental and health planning and protection systems. Options may include:*

1. Using information accumulated in accomplishing Objective A, prepare check lists of data for use of tribal decision-makers in reviewing their own codes and constitutions, and preparing changes where necessary if they choose to institutionalize their own environmental health protection programs.

2. Upon request, assist a limited number of tribes in setting up test programs during the duration of the project. AIO could act as observers and reporters.

3. Upon request, provide assistance, advice, and/or evaluation of tribal or governmental health programs.

*OBJECTIVE D.*

*To increase awareness of government agencies with responsibility for various aspects of environmental protection, health research, health care delivery, and occupational safety of Indian concerns to facilitate their cooperation with the Indian community in designing holistic approaches to those concerns.*

*Methods*

1. Active involvement and participation of the funding agencies in all phases of this project.
   a. Agencies designate personnel to work with AIO and each other throughout the project. These individuals will serve as the Federal Interagency Coordinating Group. Their activities would include:

      (1) Identifying and collecting information available in their own agency which would contribute to the success of the project.

      (2) Determine attitude toward and knowledge regarding Indians in their own agencies.

      (3) Identify individuals within and without their own agency who should have an interest or involvement in the project in some way and assist them in fitting Indian concerns into their jobs.

(4) Identify intra, inter- and public awareness communication systems or instruments which might be used to increase intra- and inter-agency communication and public awareness. Provide information for their use or assist AIO in arranging to do so.

2. Active involvement of other agencies identified in Phase I in the remaining phases of the project.

   a. Encourage them to provide financial or other support where appropriate.

   b. Agencies designate personnel to work with AIO and other federal agencies throughout the project. Their activities would include:

      (1) Identifying and collecting information available in their own agency which would contribute to the success of the project

      (2) Determine attitude toward and knowledge regarding Indians in their own agencies.

      (3) Identify individuals within and without their own agency who should have an interest or involvement in the project in some way and assist them in fitting Inconcerns into their jobs.

      (4) Identify intra-, inter- and public awareness communication systems or instruments which might be used to increase intra- and inter-agency communication and public awareness. Provide information for their use or assist AIO in arranging to do so.

3. Assess program delivery of relevant agencies to Indian tribes.

4. Provide periodic written and oral reports to Coordinating Group.

5. Evaluation of this objective may be measured quantitatively by a comparison of the following, at the beginning and end of the project:

   a. Changes or agency initiated requests for changes in legislation and/or regulations governing agency programs.

   b. Changes in funding levels of Indian programs and/or changes in budget requests within agencies and to OMB or the Congress.

6. Qualitative evaluation may be undertaken by comparing tribal evaluations of agency responses at the beginning and end of the project.

*OBJECTIVE E.*

*Establish communication between tribal governments and federal, state and local governments, private environmental and health organizations, members of Congress, etc., on environmental health concerns of mutual interest.*

*Methods*

1. Provide written information developed over the duration of the project as appropriate. This will include RED ALERTS, (AIO's newsletter), and RED PAPERS, (AIO position papers).

2. Provide a forum for exchange of information between tribal decision-makers and relevant government agencies in a series of regional seminars using information and expertise listed under Objective A.

3. Conduct a NATIONAL CONFERENCE on major social, economic, health, and land and water use issues that affect the quality of life on Indian reservations bringing together Indian decision-makers, federal, state, and local government officials, environmental and private interest groups.

4. Develop and distribute a well-organized, easy-to-follow, and cross-referenced directory of the information developed in Objective A, as well as resources available to community leaders in this area.

5. Determine the coordinating mechanisms available for agencies at the federal, state and local level to deal with the environmental health problems raised by the tribe.

6. Research the links between the private environmental and health organizations and how they could be helpful to the tribes.

7. Research and provide information on the various jurisdictional, legal and sovereignty questions in order to make communication and coordination easier between the federal agencies and the tribes on environmental health concerns.

8. Assist the interagency work group in providing information, training, etc., within their own agencies to heighten the awareness of federal employees to tribal concerns.

*MOTHER NATURE NEEDS YOUR HELP — AND SO DO WE!*

Indian nations do not have the luxury of the blind men's approach to the protection of their environments and their people. They must protect the land they have left. They must nurture their resources for their descendants. And they must nurture and protect their children to insure that succeeding generations will be physically and mentally strong and healthy. Tribal governments cannot assume that anyone else will do it for them. They must avoid tunnel vision and take the holistic view of the protection and development of their lands and their peoples. It is our hope that this project will assist them in that process.

If we do our job well, then this project will have much broader implications than the Indian community. Every community in America is faced with similar problems and can benefit from the information developed in this project.

We will be contacting all the tribes in the next few months to gather information about the kinds of development on their lands. This would include economic as well as energy development. We also plan to compile information on tne known dangers to the health and environment of such development, including hazards to individual workers.

We will be providing a forum for exchange of information between tribal decision-makers and relevant government agencies in a series of regional seminars. We will also conduct a national conference on major social, economic, health, and land and water use issues that affect the quality of life on Indian reservations bringing together Indian decision-makers, federal, state, and local government officials, environmental and health private interest groups and interested individuals.

We need your help and your ideas if this project is going to work.

*For Further Information,*
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